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ABSTRACT

A questionnaire seeking information on the relative influence of patronage factors (characteristics of an institution), sources of influence (family, friends), and influential practices and media (recruitment tactics) was administered to 100 freshmen, to determine if reasons for attending Piedmont Technical Institute differed by age, sex, or race. Participants were equally divided between white (50%) and non-white (50%), male (47%) and female (53%); 63% were 18-22 years old, 22.9% were 23-29 years old, 7.3% were 30-35 years old, and 6.3% were 36 and older. Patronage factors influenced whites and non-whites, males and females relatively equally, and had the strongest impact upon the younger students. Sources of influence had more impact upon non-whites and younger students. Influential practices and media appeared more influential among non-whites, became less influential as participants increased in age, and influenced males and females relatively equally. Males were more influenced by patronage factors, females by partronage factors and sources of influence. The greatest significant difference was demonstrated among the four age groups, and recruitment strategies are recommended accordingly. The text is supplemented by 13 tables and the appended questionnaire. (LH)

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A COMPARISON OF NEW STUDENTS' REASONS FOR INITIALLY ATTENDING PIEDMONT TECHNICAL INSTITUTE RELATIVE TO AGE, GENDER, AND RACE

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by

Thomas E. Carden

A PRACTICUM PRESENTED TO NOVA UNIVERSITY

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE

DEGREE OF DOCTOR OF EDUCATION

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February 1978

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AN ABSTRACT OF

A COMPARISON OF NEW STUDENTS' REASONS FOR INITIALLY ATTENDING PIEDMONT TECHNICAL INSTITUTE RELATIVE TO AGE, GENDER, AND RACE

This investigation sought to answer the question--Do new students differ in their reasons for initially attending Piedmont Technical Institute (Roxboro, North Carolina) because of race, gender, or age? In order to determine the answer to this question, a questionnaire was developed which consisted of personal data and individual items concerning patronage factors, sources of influence, and influential practices and media. In these item groups, participants were asked to indicate on a four point Likert scale how influential a particular item was on their decision to attend Piedmont Tech. The participants in the study consisted of all new students enrolled in a campus orientation course.

The participants responses were tallied in each of the Likert columns and sub-classified according to the characteristics of age, sex, and race. In addition, the sum of the frequencies in each column was computed in each group of items for each characteristic.

Nine null hypotheses were stated and tested by the use of Chi-Square (X^2) at the .01 level of significance. Three of the null hypotheses were accepted and six were rejected. It was concluded that the greatest significant difference was demonstrated by the age of the participants, while sex demonstrated the least significant difference. It was further concluded that patronage factors were most influential among all groups except the 36

and over age group. It was finally concluded that the image of the typical Piedmont Tech student commonly held in the community is false.

In light of the conclusions, it was recommended that Piedmont Tech's recruitment marketing strategies should reflect and account for age differences. It was further recommended that recruitment materials and advertising should emphasize patronage factors. It was finally recommended that an "image" campaign be undertaken to emphasize the new students' profile.

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Chapter 1

INTRODUCTION

STATEMENT OF PROBLEM

The question which this investigation sought to answer was: Do new students differ in their reasons for initially attending Piedmont Technical Institute because of race, gender, or age? This study compared responses to questionnaire items relative to selected demographic data.

HYPOTHESIS

The hypothesis of this study was that there is no difference in students' reasons for attending Piedmont Technical Institute relative to race, sex, or age. The study was necessary, however, to assure that the institute is not bias in its assumptions about recruiting and to reaffirm other assumptions about the reasons that students enter the institution.

BACKGROUND AND SIGNIFICANCE OF THE STUDY

Many post-secondary institutions today are faced with possible budget reductions, faculty dismissals, and excess capacity in physical plants because of declining enrollments. In addition to this dilemma, the recurring economic woes of the country have dimmed the appropriations outlook for many schools

by reducing state revenue expectations.[1] Although these foreboding signals are disturbing to the academic community, they are part of a recognized pattern which most business enterprises experience on a cyclic basis.[2] In addition to business, many non-profit organizations outside of public education have also experienced this cycle in their never-ending battle to raise money. In the forefront of these organizations are many private liberal arts colleges. As a way of competing for donation dollars, these schools have invested heavily in marketing techniques for a number of years. With the likelihood of decreasing student enrollments, many private and public colleges and universities are now also adopting marketing techniques as a way of attracting students.[3]

Indeed, over the past couple of years, the term "marketing" has supplanted the term "recruitment" within the jargon of higher education. It is important to note that marketing implies more than tacit recruitment or sales.[4] It implies planning, identifying groups to whom the service will appeal, doing research to learn their needs and preferences, developing a service, distribution planning, pricing, and production.[5] The nucleus of marketing, therefore, is attracting and servicing a public.

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[1]Walter P. Gorman, "An Evaluation of Student-Attracting Methods and University Features by Attending Students," College and University, Winter, 1976, pp. 220-225.

[2]Walter P. Gorman, "Marketing Approaches for Promoting Student Enrollments in Higher Educational Institutions," College and University, Spring, 1974, pp. 242-250.

[3]Ibid.

[4]Thomas Huddleston, Jr., "Marketing: The Applicant Questionnaire," College and University, Winter, 1976, pp. 214-218.

[5]Philip Kotler, "Why We Need Marketing," Case Currents, May, 1977,p.1.

A marketing approach to the declining rate of enrollment must include the matching of the institution's peculiar resources and advantages to well-delineated tarket markets. This entails careful research into both existing and potential market segments and a thorough appraisal of existing and potential student-attracting features of a particular school.[6] This concept of research and analysis of potential and existing market segments relative to attracting features is a primary component of a marketing system developed by Downing.[7] Piedmont Technical Institute (Roxboro, North Carolina) has adopted Downing's model as a framework for implementing a program of recruitment marketing. However, to date, little or no research has been done at the relationship to various attracting features or sources of influence. (In short, no empirical data exist which show that, for example, blacks are attracted by feature X, while whites are attracted by feature Y and so on.)

The importance of this data is paramount in the development of the marketing process and thus to the overall "health" of the institution. For example, if this investigation revealed that students of different races, ages, or sex do not differ in their reasons for initially attending Piedmont Tech then advertising, promotion, and other recruitment and marketing tactics can be consolidated. However, if significant differences were demonstrated, then different strategies and tactics need to be developed for each market segment. Finally, this data will also be used in a future study of retention and dropouts.

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[6]German (1974), op. cit.

[7]George D. Downing, Basic Marketing (Columbus, Ohio: Charles E. Merrill Publishing Co., 1971), p. 61.

The Literature

The concept of market research as a basic component of marketing has been expounded upon by many authors. In his volume, Management: Tasks, Responsibilities, Practices, Peter Drucker stated that "the aim of marketing is to know and understand the customer so well that the product or service fits him and sells itself."[8] Other writers, such as Downing and Kotler, have noted that business decisions are not made in a vacuum. To be effective, they must be based on fact. "Their effectiveness and that of the entire firm depend upon market information."[9] Kotler further emphasized that marketing requires "a good job of studying the buyer's need, perceptions, motivation, and preferences."[10]

This theme of market research and evaluation was also emphasized by writers in the area of recruitment marketing. They placed particular importance on identifying factors and sources which students listed as being influential on their decisions to attend a particular school. Robert V. Krejcie conducted a study of recruitment practices and media rated as most effective in influencing students to attend a particular technical school.[11] His sample was drawn from 350 public junior colleges across the country offering occupational programs. Ninety-five percent of the questionnaires were returned. In analyzing his results, Krejcie concluded that parents

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[8]Peter Drucker, Management: Tasks, Responsibilities, Practices (New York: Harper and Row, 1974), p. 64.

[9]Downing, op. cit., p. 87.

[10]Kotler, op. cit., p. 4.

[11]Robert V. Krejcie, "How Technical Schools Attract More Students," Industrial Arts and Vocational Education, October, 1971, pp. 69-72.

were a greater influence than high school or college personnel and that radio and TV ads were greater influences than printed materials such as newspapers or advertising. However, his major conclusion was that "descriptions of employment opportunities and careers available to program graduates appeared to be highly influential regardless of the method used to present the information."[12]

Walter P. Gorman conducted a study at the University of Tennessee at Martin.[13] The purpose of his study was to measure the relative effectiveness of certain student recruitment methods and features of UTM in attracting students. A questionnaire was devised and a random sample of 200 full-time first quarter freshmen was selected. The questionnaire was administered by other students. The results of Gorman's study were also compared with a 1974 study which samples 200 members of the entire study body. Gorman's study indicated that "location/size" (48.5%) was the dominant patronag motive reported by nearly half of the respondents with "reputation of higher quality education" second (25%) and far and above the other categories. The 1974 study also showed "location and/or size" as the dominant factor reported (54%). Gorman also reported that family and friends ranked one and two as the most important sources of personal influence in the decision to attend UTM. They were markedly ahead of high school or college personnel. Gorman concluded from his study and the results of the 1974 study that an image for high quality education, variety in curriculum offerings, and selection of non-academic activities are important controllable patronage factors. He suggested

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[12] Ibid.

[13] Gorman (1976), op. cit.

that location and/or size (which are uncontrollable) can be promoted to students in the proximate area. He pointed out that student attracting methods such as using attending students and involving visits to the campus were highly recommended by the responding sample. He concluded that family and friends were the greatest sources of personal influence in the decision to attend.

Eugene Heide reported a study in which he examined the reasons for choosing a particular junior college as reported by new freshmen at seven junior colleges in Pennsylvania. He concluded that students choose their college for one of two reasons--(1) low cost of tuition, and (2) the convenience of living at home.[14]

A study of baccalaureate-oriented students in community colleges in Chicago was made by Anderson to determine which factors students rated as most influential in their selection of a four year college. He concluded that there were four dominant factors by which students selected. They were as follows: program preferred by student, location close to home, high academic reputation, and low tuition.[15]

The foregoing review indicated that students generally list size/location, reputation of instruction, and tuition as major influences in choosing a school, however, it also indicated a lack of research in terms of the relationship of race, age and sex to these influences.

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[14]Eugene Heide, They Came For The Best Reasons: Some Aspects of Student Choice and Satisfaction at Two-Year Colleges in Southeastern Pennsylvania, U. S., Educational Resources Information Center, ERIC Document ED 068 094, 1970.

[15]Ernest F. Anderson, Factors Influencing The Choice of A Transfer Institution For Chicago Area Community College Students, U. S., Educational Resources Information Center, ERIC Document ED 128 061, 1976.

The Questionnaire

This study required the development of a questionnaire to elicit student responses concerning their reasons for attending Piedmont Tech. The obvious shortcomings of a locally produced instrument over a standardize version were recognized by the writer. However, Best noted that this type of questionnaire "has unique advantages and, property constructed and administered, it may serve as a most appropriate and useful data-gathering device . . ."[16] Further justification for a locally produced marketing questionnaire was stated by Huddleston in the article previously cited. He noted that although national and regional studies by the College Entrance Examination Board, American College Testing, and the American Council of Education are "excellent examples of market research among a college-bound applicant pool," they are generally not localized and therefore not always relevant to a particular audience.[17] This statement is even more accurate in assessing the audience of a technical institute who's students are generally considered "non-traditional," and thus, do not resemble more traditional student profiles. Nevertheless, Huddleston noted that national market data are useful for hints regarding the content of questions for a local study. He further noted that there are four basic criteria of question writing which develop "simplistic yet salient" instruments. They were as follows: (1) Are the questions too many or too few? (2) Are the questions related to the problem to be studied?, (3) Is the question ambiguous?, and (4) Is the question a leading question?[18]

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[16]John W.Best, Research in Education (Englewood Cliffs, N. J.: Prentice-Hall, 1970), p. 162.

[17]Huddleston, op. cit.

[18]Ibid.

Best concluded that question writing is a "difficult job, one that requires a great deal of hardwork, imagination, and ingenuity."[19] The questionnaire for this study was developed using various studies listed above to provide assistance with content and form.

DEFINITION OF TERMS

Questionnaire: An instrument designed to elicit evaluative information in response to a fixed responses and/or open ended questions.

New Student: Students who were enrolled in the Fall Quarter, 1977, for the first time at Piedmont Technical Institute (Roxboro, North Carolina), and who are also enrolled in DHR 101--Development of Human Resources.

Demographic Data: Particular facts about students such as age, gender, race, employment status, distance from campus, and financial aid status.

Influence: The power of persons or things to affect the actions and decisions of students.

Reasons for Attendance: A broad generalized phrase consisting of the following components:

Patronage Factors: One or more features of an institution of higher education given by students as a reason for deciding to attend that institution. Examples to be studied are location, size, academic reputation, social activities, financial aid, tuition, campus, course offerings, attitude of instructors;

Sources of Influence: Individuals or groups given by students as being influential in their decisions to attend a particular institution of higher education. Examples to be studies are family, friends, former students, high school and college personnel, and other students; and

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[19] Best, op. cit., p. 169.

Influential Practices and Media: A variety of recruitment tactics used by an institution of higher education to try to influence students to attend that institution.

Independent Variable: Types of new students.

Dependent Variable: Differences in reasons for attendance relative to race, age, or gender.

DHR 101 - Development of Human Resources: This is a course at Piedmont Technical Institute which is required of all first quarter students. Its content consists of an orientation to campus life, study skills, and the process of valuing and values clarification.

LIMITATIONS OF THE STUDY

1. This study measured only the responses of new students at Piedmont Technical Institute. Therefore, the results cannot be generalized beyond Piedmont Tech or Person County, North Carolina.

2. The self-administered questionnaire may have limited accuracy, truthfulness, and clarity of response.

3. The data of the study was limited to the opinions and perceptions held by the respondents to the questionnaire.

4. The study was limited because no attempt was made to validate the questionnaire statistically.

5. Electing to distribute the questionnaire only to new students enrolled in a selected course rather than choosing a random sample of all new students may have been a limiting factor.

BASIC ASSUMPTIONS

1. The students who responded to the questionnaire were normally distributed with regards to race, sex, age, and intelligence.

2. The students who responded to the questionnaire were truthful in their responses.

3. The nature of the items on the questionnaire were sufficient to determine differences in the reasons for attendance.

PROCEDURES FOR COLLECTING THE DATA

The Questionnaire

As mentioned above, the instrument to gather data was locally produced. However, it closely resembled instruments developed in two other studies previously cited (Gorman and Krejcie). The questionnaire consisted of four sections as follows: personal data, patronage factors, sources of influence, and influential practices and media. In the last three sections, respondents were asked to indicate how influential a particular item was on their decision to attend Piedmont Technical Institute. A Likert Scale of one tofour was used for respondents to indicate the degree of influence. After the questionnaire was developed, it was presented to various staff members and students who served as a panel of judges to determine the appropriateness and quality of the content. (See Appendix A.)

Sources of Data

The sample consisted of all students (approximately 100) enrolled in the six sections of DHR 101 - Development of Human Resources for the Fall Quarter, 1977, who were in their first quarter of enrollment at Piedmont Tech. This group was selected because it consists of approximately 80 percent of

all new students enrolled at the institution. Since it is assumed that the group was normally distributed, it was possible to infer that the results of the data will be applicable to future groups of enrolling students.

Administering and Scoring of the Questionnaire

After the questionnaire was developed and reviewed, it was administered to the above groups. This occurred during the week of October 10, 1977. No provisions were made for students who were absent on those days. The writer administered the instrument to each group personally, and was available for questions and comments. Students were not identified on the questionnaire.

After the questionnaires were completed, they were scored as follows:

1. The participants' responses were tallied based on the following characteristics:

A. Age: 18-22
23-29
30-35
36 and over

B. Race: White
Black
Other

C. Sex: Male
Female.

2. The total number of responses was tallied in each of the four columns of the Likert Scale for each item on the instrument.

3. The items on the questionnaire were divided into three groups--patronage factors, sources of influence, and influential practices and media.

4. The frequency of responses in each column was added up for each of the three groups of items. This gave a total number of responses in each column for each of the groups of items based on the characteristics of age, sex, and race.

PROCEDURES FOR TREATMENT OF THE DATA

Propham suggested that the prime consideration in choosing a test of significance is whether the data are nominal, ordinal, or interval levels of measurement.[20] He further recommended that unless the data have been measured on a scale of at least interval strength, parametric techniques should not be used. Since the data from this investigation was treated as nominal, a non-parametric test, Chi-Square, was used.

Null Hypotheses

The null hypotheses tested were as follows:

1. There is no significant difference between students of different race relative to the influence of patronage factors.

2. There is no significant difference between students of different race relative to sources of influence.

3. There is no significant difference between students of different race relative to influential practices and media.

4. There is no significant difference between students of different age groups relative to the influence of patronage factors.

5. There is no significant difference between students of different age groups relative to sources of influence.

6. There is no significant difference between students of different age groups relative to influential practices and media.

7. There is no significant difference between students of different sex relative to the influence of patronage factors.

8. There is no significant difference between students of different sex relative to sources of influence.

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[20] W. James Popham, Educational Statistics (New York: Harper and Row, 1967), p. 272.

9. There is no significant difference between students of different sex relative to influential practices and media.

The alternative hypotheses were as follows:

1. There is a significant difference between new students of different race relative to the influence of patronage factors.

2. There is a significant difference between new students of different race relative to sources of influence.

3. There is a significant difference between new students of different race relative to influential practices and media.

4. There is a significant difference between new students of different age groups relative to the influence of patronage factors.

5. There is a significant difference between new students of different age groups relative to sources of influence.

6. There is a significant difference between new students of different age groups relative to influential practices and media.

7. There is a significant difference between new students of different sex relative to the influence of patronage factors.

8. There is a significant difference between new students of different sex relative to sources of influence.

9. There is a significant difference between new students of different sex relative to influential practices and media.

Since the alternative hypotheses allowed only for the possibility of a statistical result which were positive, a one tail test was used to interpret the results.

The Test

As stated above, Chi-Square (X^2) was used as the test of significance. Best noted that the Chi-Square test applies only to discrete data, not to continuous variables (discrete variables are those expressed in frequency

counts, rather than as measurement).[21] He further stated that the test is based upon the concept of independence, the idea that one variable is not affected by, or related to, another. He concluded that this provides "a method of testing the difference between actual preferences and choices based upon a probability assumption."[22] The formula as listed by Best for Chi-Square (X^2) was as follows:

$$X^2 = \sum \frac{(f_o - f_e)^2}{f_e}$$

Level of Significance

The .01 level was selected as the criterion for statistical significance. This level was chosen because of a lack of control over the distribution of the participants and because the instrument was not validated statistically.

Critical Values of Chi-Square

As in other inferential test of significance, the value of Chi-Square is interpreted from a table of probability values, which in this case was based on the Chi-Square distribution as listed in Popham.[23] It is necessary to enter the table with appropriate number of degrees of freedom. Degrees of freedom (DF) are determined from a contingency table by multiplying the number of rows minus one times the number of columns minus one.

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[21] Best, op. cit., p. 278.

[22] Ibid.

[23] Popham, op. cit., p. 405.

The critical value of Chi-Square for the first, second, and third hypotheses is 11.341 (3DF @ .01 level). The fourth, fifth, and sixth hypotheses have a critical value of 21.666 (9 DF @ .01 level). The critical value of the seventh, eighth, and ninth hypotheses is 11.341 (3 DF @ .01 level).[24]

The Computation of Chi-Square

Nine contingency tables were constructed (one for each null hypotheses). The rows of each table consisted of an appropriate set of characteristics as listed above. The columns consisted of the four possible Likert responses. The frequency totals for each characteristic listed above were then entered onto their corresponding tables. These numbers were labeled the observed frequencies (f_o). The expected frequencies (f_e) for each cell were computed by using the following formula:

$$f_e = \frac{(\sum f_o \text{ columns})\ (\sum f_o \text{ rows})}{\text{grand total.}}$$

The computed expected frequencies were then entered in the appropriate cell in parenthesis. After the observed and expected frequencies were determined a computation table was constructed. When the computation was completed, the computed Chi-Square for each hypothesis was compared with the critical value of Chi-Square for each hypothesis as listed above. If the computed Chi-Square was less than the critical value, it fell within the area of acceptance for that null hypothesis. However, if the computed

[24] Ibid.

Chi-Square was equal to, or greater than, the critical value, it fell in the area of hypothesis rejection, and the alternative hypothesis was accepted.

Popham noted that this test indicated whether there was a significant relationship between variables. However, the actual nature of the relationship must be discerned by a visual inspection of the contingency table. He further suggested that when interpreting the meaning of a significant Chi-Square value, it is often helpful to notice the contribution made by each cell in the contingency table to the total Chi-Square value.[25] He concluded that such an observation can prove valuable in explaining the relationship indicated by the significance of Chi-Square. In addition to Popham's suggested means of interpretation, the data also was interpreted by comparing the ratio of the sum of "major influence" and "minor influence" responses to the sum of "no influence" responses for each of the three groups of questionnaire items for the characteristics of sex, age, and race. This method also aided in explaining the relationship indicated by the significance of Chi-Square.

Chapter 2

THE RESULTS

As mentioned above, this investigation sought to answer the question--Do new students differ in their reasons for initially attending Piedmont Technical Institute because of race, gender, or age? In order to determine the answer to this question, a questionnaire was devised which consisted of personal data and three groups of items--patronage factors, sources of influence, and influential practices and media. In these item groups, participants were asked to indicate on a four point Likert Scale how influential a particular item was on their decision to attend Piedmont Technical Institute. The participants in the study consisted of all new students enrolled in DHR 101 -- Development of Human Resources for the Fall Quarter, 1977. The participants responses were tallied in each of the Likert columns and sub-classified according to the characteristics of age, sex, and race. In addition, the sum of the frequencies in each column was computed in each group of items for each characteristic. Nine null hypotheses were tested by use of the Chi-Square test. The .01 level was selected as the criterion for statistical significance. Critical values of Chi-Square were also stated for each hypothesis. The computed values of Chi-Square for each hypothesis were determined and compared to the critical value for acceptance or rejection of the null hypothesis. In addition to testing the hypotheses, a visual inspection, as suggested by Popham, was conducted of each computation to explain the relationship of the variables indicated by the significance of Chi-Square. Finally, a comparison was made of the ratio of responses for the three parts of the questionnaire based on the characteristics of sex, age, and race. The following tables and narrative were the results of that process.

Table 1. A Chi-Square Test Of The Hypothesis That There Is No Significant Difference Between Students Of Different Race Relative To The Influence Of Patronage Factors.

RACE	SUM OF THE FREQUENCIES				
	1	2	3	4	Sub-total
White	170 (183)	44 (51)	164 (166)	275 (253)	653
Non-white	131 (118)	40 (33)	108 (106)	141 (163)	420
Sub-total	301	84	272	416	1073

THE COMPUTATION OF X^2

		f_o	f_e	f_o-f_e	$(f_o-f_e)^2$	$\frac{(f_o-f_e)^2}{f_e}$
White	1	170	183	-13	169	.92
White	2	44	51	- 7	49	.96
White	3	164	166	- 2	4	.02
White	4	275	253	22	484	1.91
Non-white	1	131	118	13	169	1.43
Non-white	2	40	33	7	49	1.48
Non-white	3	108	106	2	4	.03
Non-white	4	141	163	-22	484	2.96
					X^2 =	9.71

In Table 1, the null hypothesis--"There is no significant difference between different races relative to the influence of patronage factors"--was tested. Since the computed Chi-Square of 9.71 was below the critical value of 11.34, the null hypothesis was accepted at the .01 level of significance. Nevertheless, a visual inspection of the contigency table revealed that whites gave more "major influence" responses and fewer "no influence" responses than were expected. Conversely, non-whites gave fewer "major influence" responses and more "no influence" responses than were expected. The "undecided" and

"minor influence" responses were generally as expected. The ratio of influence responses to no influence responses was 2.5:1 for whites and 1.9:1 for non-whites.

Table 2. A Chi-Square Test Of The Hypothesis That There Is No Significant Difference Between Students Of Different Race Relative To Sources Of Influence.

RACE	SUM OF THE FREQUENCIES				
	1	2	3	4	Sub-total
White	198 (162)	17 (24)	65 (75)	64 (82)	343
Non-white	123 (159)	30 (23)	83 (73)	100 (81)	336
Sub-total	321	47	148	163	679

THE COMPUTATION OF X^2

		f_o	f_e	(f_o-f_e)	$(f_o-f_e)^2$	$\frac{(f_o-f_e)^2}{f_e}$
White	1	198	162	36	1296	8.00
White	2	17	24	- 7	49	2.04
White	3	65	75	-10	100	1.33
White	4	63	82	-19	361	4.45
Non-white	1	123	159	-36	1296	8.15
Non-white	2	30	23	7	49	2.13
Non-white	3	83	73	10	100	1.36
Non-white	4	100	81	19	361	4.45
					$X^2=$	32.27

The null hypothesis--"There is no significant difference between students of different race relative to sources of influence"-- was tested in Table 2. It was rejected at the .01 level because the computed value of 32.27 exceeded the critical value of 11.34. As before, a visual inspection was conducted of the contigency table and computation table included in Table 2. This further

analysis suggested that there were fewer "major influence" and more "no influence" responses than expected among whites. Meanwhile, non-whites had more "major influence" and less "no influence" responses than expected. The "undecided" and "minor influence" responses were generally more than expected for non-whites, and less than expected for whites. The ratio of column 3 and 4 responses to column 1 responses was .6:1 for whites and 1.5:1 for non-whites.

Table 3. A Chi-Square Test Of The Hypothesis That There Is No Significant Difference Between Students Of Different Race Relative To Influential Practices and Media.

RACE	SUM OF THE FREQUENCIES				
	1	2	3	4	Sub-total
White	294 (251)	39 (45)	116 (129)	88 (109)	537
Non-white	199 (242)	55 (46)	138 (125)	125 (104)	517
Sub-total	492	94	254	213	1054

THE COMPUTATION OF X^2

		f_o	f_e	(f_o-f_e)	$(f_o-f_e)^2$	$\frac{(f_o-f_e)^2}{f_e}$
White	1	294	251	43	1849	7.36
White	2	39	48	- 9	81	1.68
White	3	116	129	-13	169	1.31
White	4	88	109	-21	441	4.04
Non-white	1	199	242	-43	1849	7.64
Non-white	2	55	46	9	81	1.76
Non-white	3	138	125	13	169	1.35
Non-white	4	125	104	21	441	4.24
					$X^2=$	29.38

In Table 3, the null hypothesis--"There is no significant difference between students of difference race relative to influential practices and media"--

was tested. It was rejected at the .01 level because the computed value of Chi-Square (29.38) exceeded the critical value listed above (11.34). A visual inspection of Table 3 revealed that whites had fewer "major influence" responses and more "no influence" responses than expected. Following the pattern listed for Table 2, non-whites had more "major influence" and fewer "no influence" responses than expected. Whites had fewer "undecided" and "minor influence" responses than expected, while non-whites had more than expected. The ratio of responses for whites was .7:1, while it was 1.3:1 for non-whites.

Table 4. A Chi-Square Test Of The Hypothesis That There Is No Significant Difference Between Students Of Different Age Groups Relative To The Influence Of Patronage Factors.

AGE	SUM OF THE FREQUENCIES				
	1	2	3	4	Sub-total
18 - 22	172 (193)	45 (53)	161 (141)	169 (160	547
23 - 29	69 (69)	22 (19)	44 (51)	63 (59)	198
30 - 35	29 (22)	6 (6)	11 (16)	17 (19)	63
36 & over	34 (19)	10 (5)	6 (14)	4 (16)	54
Sub-total	304	83	222	253	862

THE COMPUTATION OF X^2

	f_o	f_e	(f_o-f_e)	$(f_o-f_e)^2$	$\frac{(f_o-f_e)^2}{f_e}$
18 - 22 1	172	193	-21	441	2.28
18 - 22 2	45	53	- 8	64	1.20
18 - 22 3	161	141	20	400	2.83
18 - 22 4	169	160	9	81	.50
23 - 29 1	69	69	0	0	0
23 - 29 2	22	19	3	9	.47
23 - 29 3	44	51	- 7	49	.96
23 - 29 4	63	59	4	16	.27

Table 4. (Continued)

		f_o	f_e	(f_o-f_e)	$(f_o-f_e)^2$	$\frac{(f_o-f_e)^2}{f_e}$
30 - 35	1	29	22	7	49	2.13
30 - 35	2	6	6	0	0	0
30 - 35	3	11	16	- 5	25	1.56
30 - 35	4	17	19	- 2	4	.21
36 & over	1	34	19	15	225	11.84
36 & over	2	10	5	5	25	5.00
36 & over	3	6	14	- 8	64	4.57
36 & over	4	4	16	-12	144	9.00
					$X^2=$	42.82

In Table 4, the null hypothesis--"There is no significant difference between students of different age groups relative to the influence of patronage factors"--was tested. Since the computed Chi-Square of 42.81 was greater than the critical value of 21.67, the null hypothesis was rejected at the .01 level of significance. A visual analysis of the results further revealed that the responses of the 36 and over group deviated the most from the expected responses in comparison with the responses of the other age groups. This deviation was a major factor in rejecting the null hypothesis since it contributed 30.41 points to the calculated value of Chi-Square. The ratio of responses was 1.9:1 for 18-22 year olds, 1.5:1 for 23-29, 1:1 for 30-35, and .3:1 for participants 36 and over.

Table 5. A Chi-Square Test Of The Hypothesis That There Is No Significant Difference Between Students Of Different Age Groups Relative To Sources Of Influence.

AGE	SUM OF THE FREQUENCIES				
	1	2	3	4	Sub-total
18 - 22	177 (201)	22 (29)	109 (93)	118 (104)	427
23 - 29	74 (72)	16 (11)	29 (34)	35 (37)	154
30 - 35	32 (20)	6 (3)	7 (11)	8 (12)	49
36 & over	33 (20)	6 (3)	2 (9)	1 (10)	42
Sub-total	316	46	147	163	672

THE COMPUTATION OF X^2

		f_o	f_e	(f_o-f_e)	$(f_o-f_e)^2$	$\frac{(f_o-f_e)^2}{f_e}$
18 - 22	1	177	201	-24	576	2.86
18 - 22	2	22	29	- 7	49	1.68
18 - 22	3	109	93	16	256	2.75
18 - 22	4	119	104	15	225	2.16
23 - 29	1	74	72	2	4	.05
23 - 29	2	16	11	5	25	2.25
23 - 29	3	29	34	- 5	25	.73
23 - 29	4	35	37	- 2	4	.10
30 - 35	1	32	23	9	81	3.52
30 - 35	2	2	3	- 1	1	.33
30 - 35	3	7	11	- 4	16	1.45
30 - 35	4	8	12	- 4	16	1.33
36 & over	1	33	20	13	169	8.45
36 & over	2	6	3	3	9	3.00
36 & over	3	2	9	- 7	49	5.44
36 & over	4	1	10	- 9	81	8.10
					$X^2=$	44.22

The null hypothesis--"There is no significant difference between students of different age groups relative to sources of influence"-- was

tested in Table 5. It was rejected at the .01 level because the computed value of 44.22 exceeded the critical value of 21.67. As before, a visual inspection was conducted of the contingency table and computation tables included in Table 5. This additional analysis suggested that, as in Table 4, the r[illegible] of the 36 and over group deviated greatest from the expected responses [illegible]pared to the other age groups. Again, this group contributed hea[illegible]o the rejection of the null hypothesis. The 18-22 year old group also contributed to that rejection. The ratio of responses for the 18-22 group was 1.3:1. It was .9:1 for the 23-29 group, 4:1 for the 30-35 group, and .09:1 for the 36 and over group.

Table 6. A Chi-Square Test Of The Hypothesis That There Is No Significant Difference Between Students Of Different Age Groups Relative To Influential Practices And Media.

AGE	SUM OF THE FREQUENCIES				
	1	2	3	4	Sub-total
18 - 22	288 (314)	46 (60)	193 (160)	145 (138)	672
23 - 29	119 (113	32 (22)	37 (57)	53 (49)	241
30 - 35	48 (36)	3 (7)	12 (18)	14 (16)	77
36 & over	38 (31)	14 (6)	10 (16)	4 (13)	66
Sub-total	492	95	252	216	1056

THE COMPUTATION OF X^2

		f_o	f_e	(f_o-f_e)	$(f_o-f_e)^2$	$\frac{(f_o-f_e)^2}{f_e}$
18 - 22	1	288	314	-26	676	2.15
18 - 22	2	46	60	-14	196	3.26
18 - 22	3	193	160	23	529	3.30
18 - 22	4	145	138	7	49	.35

Table 6. (Continued)

		f_o	f_e	(f_o-f_e)	$(f_o-f_e)^2$	$\frac{(f_o-f_e)^2}{f_e}$
23 - 29	1	119	113	6	36	.31
23 - 29	2	32	22	10	100	4.54
23 - 29	3	37	57	-20	400	7.01
23 - 29	4	53	49	4	16	.32
30 - 35	1	48	36	12	144	4.00
30 - 35	2	3	7	- 4	16	2.28
30 - 35	3	12	18	- 6	36	2.00
30 - 35	4	14	16	- 2	4	.25
36 & over	1	38	31	7	49	1.58
36 & over	2	14	6	8	64	10.66
36 & over	3	10	16	- 6	36	2.25
36 & over	4	4	13	- 9	81	6.23
					$X^2=$	50.49

Table 6 tested the null hypothesis--"There is no significant difference between students of different age groups relative to influential practices and media." It was rejected at the .01 level because the computed value of Chi-Square (50.49) exceeded the critical value listed above (21.67). A visual inspection of Table 6 revealed that the responses of the 36 and over groups did not have as great an influence on the computed value as in the two previous tests. It further indicated that the 18-22 year olds had significantly more "minor influence" responses and fewer "undecided" responses than expected. Conversely, the 23-29 group had significantly fewer "minor influence" and more "undecided" responses than expected. The ratio of responses for the 18-22 year old group was 1.2:1, while it was .8:1 for the 23-29 year old group, .5:1 for the 30-35, and .4:1 for the 36 and over participants.

Table 7. A Chi-Square Test Of The Hypothesis That There Is No Significant Difference Between Students Of Different Sex Relative To The Influence Of Patronage Factors.

SEX	SUM OF THE FREQUENCIES				
	1	2	3	4	Sub-total
Male	133 (144)	46 (40)	117 (108)	119 (123)	415
Female	167 (156)	38 (44)	107 (116)	137 (133)	449
Sub-total	300	84	224	256	864

THE COMPUTATION OF X^2

		f_o	f_e	(f_o-f_e)	$(f_o-f_e)^2$	$\frac{(f_o-f_e)^2}{f_e}$
Male	1	133	144	-11	121	.84
Male	2	46	40	6	36	.90
Nake	3	117	108	9	81	.75
Male	4	119	123	- 4	16	.13
Female	1	167	156	11	121	.77
Female	2	38	44	6	36	.81
Female	3	107	116	- 9	81	.69
Female	4	137	133	4	16	.12
					$X^2=$	5.01

In Table 7, the null hypothesis--"There is no significant difference between students of different sex relative to the influence of patronage factors"--was tested. Since the computed Chi-Square of 5.01 was less than the critical value of 11.34, the null hypothesis was accepted at the .01 level of significance. A visual analysis of the results however revealed that males had fewer "no influence" and "major influences" responses than expected, while they had more "undecided" and "minor influence" responses than expected. Conversely, females had more "no influence" and "major influence" responses

and fewer "undecided" and "minor influence" responses than expected. The ratio of columns 3 and 4 responses to column 1 responses was 1.8:1 for males and 1.4:1 for females.

Table 8. A Chi-Square Test Of The Hypothesis That There Is No Significant Difference Between Students Of Different Sex Relative To Sources Of Influence.

SEX	SUM OF THE FREQUENCIES				
	1	2	3	4	Sub-total
Male	175 (151)	27 (21)	59 (70)	59 (78)	320
Female	141 (165)	18 (24)	88 (77)	104 (85)	351
Sub-total	316	45	147	163	671

THE COMPUTATION OF X^2

		f_o	f_e	(f_o-f_e)	$(f_o-f_e)^2$	$\frac{(f_o-f_e)^2}{f_e}$
Female	1	141	165	-24	576	3.49
Female	2	18	24	- 6	36	1.50
Female	3	88	77	11	121	1.57
Female	4	104	85	19	361	4.24
Male	1	175	151	24	576	3.81
Male	2	27	21	6	36	1.71
Male	3	59	70	-11	121	1.72
Male	4	59	78	-19	361	4.62
					$X^2=$	22.66

The null hypothesis--"There is no significant difference between students of different sex relative to sources of influence"--was tested in Table 8. It was rejected at the .01 level because the computed value of 22.66 exceeded the critical value of 11.34. As before, a visual inspection was conducted of the contigency and computation tables. This further analysis suggested that there were fewer "major influence" and more "no influence" responses for males than

expected. Conversely, female responses were larger in the "major influence" area and smaller in the "no influence" area than expected. The "undecided" and "minor influence" responses by comparison were generally closer to the frequencies expected. The ratio of responses for males was .7:1, while it was 1.4:1 for females.

Table 9. A Chi-Square Test Of The Hypothesis That There Is No Significant Difference Between Students Of Different Sex Relative To Influential Practices And Media.

SEX	SUM OF THE FREQUENCIES				
	1	2	3	4	Sub-total
Male	244 (235)	51 (45)	128 (123)	82 (102)	505
Female	251 (260	43 (49)	130 (135)	133 (113)	557
Sub-total	495	94	258	215	1062

THE COMPUTATION OF X^2

		f_o	f_e	(f_o-f_e)	$(f_o-f_e)^2$	$\frac{(f_o-f_e)^2}{f_e}$
Male	1	244	235	9	81	.34
Male	2	51	45	6	36	.80
Male	3	128	123	5	25	.20
Male	4	82	102	-20	400	3.92
Female	1	251	260	- 9	81	.31
Female	2	43	49	- 6	36	.73
Female	3	130	135	- 5	25	.18
Female	4	133	113	20	400	3.53
					$X^2=$	10.01

In Table 9, the null hypothesis--"There is no significant difference between students of different sex relative to influential practices and media"--was tested. It was accepted at the .01 level because the computed value of

Chi-Square 10.01 was less than the critical value listed above (11.34). A visual inspection of Table 9 revealed that males had fewer "major influence" and more "no influence" responses than expected. Following the above pattern, females had more "major influence" and fewer "no influence" responses than expected. The ratio of responses was .9:1 for males and 1:1 for females.

AUXILLIARY FINDINGS

In addition to the above results, this investigation generated auxilliary findings about the demographic characteristics of the participants. Although these findings make little contribution to answering the research question, they are sufficiently worthwhile to deserve reporting because they help place the primary results of the study in perspective.

Table 10. A profile Of The Participants. (N=96)

RACE:		SEX:	
White = 50%		Male = 47%	
Non-white = 50%		Female = 53%	
		AGE:	
18-22 = 63.5%	23-29 = 22.9%	30-35 = 7.3%	36 & over = 6.3%

Overall, the participants in the study were equally divided between white and non-white and between sexes. However, the ages of the group were heavily skewed towards the eighteen to twenty-two year old group. Furthermore, over 86 percent of all participants were 29 or under.

Table 11. A Profile Of The Participants By Race.

WHITES (N=48)				
Age:				
	18-22 = 67%	23-29 = 17%	30-35 = 6%	36 and over = 10%
Sex:				
	Male = 50%	Female = 50%		
Employment Status:				
		Full-time = 33%	Part-time = 21%	Unemployed = 44%
Recipient of Financial Aid:				
		Yes = 31%	No = 69%	
NON-WHITES (N=48)				
Age:				
	18-22 = 60%	23-29 = 31%	30-35 = 6%	36 and over = 2%
Sex:				
	Males = 44%	Female = 56%		
Employment Status:				
		Full-time = 41%	Part-time = 8%	Unemployed = 51%
Recipient of Financial Aid:				
		Yes = 60%	No = 40%	

In terms of age, both whites and non-whites were heavily skewed towards the younger categories. The percentage of whites under 29 was 84 percent, while 91 percent of the non-whites were under 29. White participants were equally divided between the sexes, however, for non-whites, females were in the majority. There were no irregularities apparent in the employment status of the two groups, however the data suggested some inconsistencies regarding the percentage of whites and non-whites receiving financial aid.

Table 12. Profile Of The Participants By Age.

18-22 (N=61)			
Race:			
White = 52%	Non-white = 48%		
Sex:			
Male = 42%	Female = 58%		
Employment Status:			
Full-time = 28%	Part-time = 15%	Unemployed = 57%	
Recipient of Financial Aid:			
Yes = 37%	No = 63%		

23-29 (N=22)		
Race:		
White = 36%	Non-white = 64%	
Sex:		
Male = 50%	Female = 50%	
Employment Status:		
Full-time = 59%	Part-time = 13%	Unemployed = 28%
Recipient of Financial Aid:		
Yes = 68%	No = 32%	

30-35 (N=7)		
Race:		
White = 57%	Non-white = 43%	
Sex:		
Male = 57%	Female = 43%	
Employment Status:		
Full-time = 71%	Part-time = 14.5%	Unemployed = 14.5%
Receipient of Financial Aid:		
Yes = 57%	No = 43%	

Table 12. (Continued)

36 and over (N=6)			
Race:			
White = 83%	Non-white = 17%		
Sex:			
Male = 83%	Female = 17%		
Employment Status:			
Full-time = 50%	Part-time = 0	Unemployed = 50%	
Recipient of Financial Aid:			
Yes = 33%	No = 67%		

In terms of race, two of the age groups deviated significantly from the total group. These were the 23-20 year olds, which were predominately non-white; and, the 36 and over group, which were predominately white. This latter group was also contrary to the normal in the number of males. The majority of the three older groups were employed either full or part time, but the 18-22 group was generally unemployed. Interestingly enough, the majority of those in these older groups were also collecting some type of financial aid, while the majority of the younger participants were not receiving financial aid.

Table 13. A Profile Of The Participants By Sex.

MALES (N=46)			
Race:			
White = 54%	Non-white = 46%		
Age:			
18-22 = 56.5%	23-29 = 23.9%	30-35 = 8.6%	36 and over = 10.8%
Employment Status:			
Full-time = 54%	Part-time = 15.2%	Unemployed = 30.4%	

Table 13. (Continued)

MALES	
Recipient of Financial Aid:	
Yes = 43.5%	No = 56.5%
FEMALES (N=50)	
Race:	
White = 48%	Non-white = 52%
Age:	
18-22 = 70%	23-29 = 20%
30-35 = 10%	36 and over = 0
Employment Status:	
Full-time = 22%	Part-time = 14$
Enemployed = 64%	
Recipient of Financial Aid:	
Yes = 48%	No = 52%

The sex of participants was generally divided equally among whites and non-whites. However, the participants tended to be white males or non-white females. The distribution of the ages of male participants was greater than female, especially in the under 23 category. This same trend was also apparent in the employment status of males versus that of females. There appeared to be little distinction regarding the receiving of financial aid.

Chapter 3

DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

This investigation's purpose was to determine if a relationship existed between particular market segments and various attracting features, recruitment tactics, or influential people. It specifically sought to answer the question--Do new students differ in their reasons for initially attending Piedmont Technical Institute because of race, gender, or age? The investigation was limited to a study of new students at Piedmont Technical Institute (Roxboro, North Carolina). Other limitations were as follows:

1. The self-administered questionnaire may have limited accuracy, truthfulness, and clarity of response.

2. The data was limited to the opinions and perceptions held by the respondents.

3. No attempt was made to validate the instrument statistically.

4. Electing to distribute the instrument only to new students enrolled in a selected course rather than choosing a random sample may have been a limiting factor.

Therefore, the results of the data cannot be generalized beyond Piedmont Technical Institute and Person County, North Carolina.

Within the context of the research question and limitation of the study, the following conclusions were derived from an analysis of the results.

1. There was no significant difference between whites and non-whites relative to the influence of patronage factors. However, patronage factors appeared to be more influential with whites than with non-whites.

2. There was a significant difference between whites and non-whites relative to sources of influence. The results suggested that sources of influence were more influential with non-whites than with whites.

3. There was a significant difference between whites and non-whites relative to influential practices and media. Practices and media were suggested as being more influential with non-whites than with whites.

4. There was a significant difference between the four age groups relative to the influence of patronage factors. However, the 36 and over group deviated so much from the expected outcomes that the findings may be biased. Nevertheless, the results suggested that patronage factors influenced participants in relation to their respective age group. The younger the participant, the more they were influenced.

5. There was a significant difference between the four age groups relative to sources of influence. Again, the 36 and over group deviated so much from the expected outcome that the findings may be biased; and as before, the younger participants were more influenced than were the older ones.

6. There was a significant difference between the four age groups relative to influential practices and media. However, in this result, the deviation from the expected outcome was generally widespread in all four groups, and not isolated to one as above. As before, practices and media were less influential as participants increased in age.

7. In terms of age groups, a comparison of ratios of response for the three areas suggested that patronage factors were most influential, with sources of influence and influential practices and media ranked second and third, respectively.

8. There was no significant difference between males and females relative to the influence of patronage factors. However, males were influenced

more by patronage factors than were females.

9. There was a significant difference between males and females relative to sources of influence. The results suggested that females were more influenced by those items on the questionnaire than were males.

10. There was no significant difference between males and females relative to influential practices and media. Male and females appeared to be influenced about the same by practices and media.

11. The results further suggested that males were more influenced by patronage factors, while females were more influenced by patronage factors and sources of influence.

In addition to the above, the auxilliary findings suggest conclusions which were worthy of reporting.

1. New students at Piedmont Technical Institute are predominately under 23 years of age. This conflicts with current state and national trends as well as with Piedmont Tech's past history of enrollments.

2. The ratio of whites to non-whites among new students is one to one. This differs from the county's ratio of whites to non-whites which is two to one.

3. The ratio of males to females among new students was also one to one. This finding repudiated the belief commonly held in the community that Piedmont Tech is a "veterans' school."

These conclusions indicated that the results of the study have certain implications for the development and implementation of a recruitment marketing program at Piedmont Tech. The three most obvious of these were the identification of target groups, the identification of the types of recruitment strategies that work with these target groups, and the identification of a student profile which is contrary to national trends and local beliefs.

The identification of target groups was based on those characteristics which demonstrated the greatest differences. Of these, the greatest significant difference was demonstrated among the four age groups, while the sexes demonstrated the least. Concerning effective recruitment strategies, patronage factors were most influential among all groups except the 36 and over age group. However, sources of influence and influential practices and media were perceived as more effective by females and non-whites than by males and whites, who perceived patronage factors as most influential.

In the context of the above conclusions and implications, the following recommendations were developed.

1. The recruitment marketing strategies developed and implemented by Piedmont Technical Institute should be oriented to at least four target groups based on age.

2. Piedmont Tech should emphasize patronage factors most often in its recruitment materials and advertising.

3. Piedmont Tech should develop and implement an "image" campaign in the community in which the new "student profile" is emphasized.

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APPENDIX A

PIEDMONT TECHNICAL INSTITUTE

1977 NEW STUDENT QUESTIONNAIRE

I. PERSONAL DATA. (Please circle the response which best represents you.)

1.	Race	White	Black	Other	
2.	Age	18-22	23-29	30-35	36 and over
3.	Sex	Male	Female		
4.	Employment Status	Full-time	Part-time	Unemployed	
5.	Do you receive financial aid?	Yes	No		

II. IN DECIDING TO ATTEND PIEDMONT TECH, HOW INFLUENTIAL WERE THE FOLLOWING ITEMS? (Please circle the number which most accurately describes your feeling based on the following legend:

4 = major influence
3 = minor influence
2 = undecided
1 = no influence.)

6.	Location of Piedmont Tech	1	2	3	4
7.	Size of Piedmont Tech	1	2	3	4
8.	Reputation for high quality instruction	1	2	3	4
9.	Social Activities	1	2	3	4
10.	Availability of financial aid at Piedmont Tech	1	2	3	4
11.	Low tuition at Piedmont Tech	1	2	3	4
12.	Piedmont Tech's new campus	1	2	3	4
13.	The wide variety of course offerings at Piedmont Tech	1	2	3	4
14.	The attitude of instructors	1	2	3	4

III. HOW MUCH INFLUENCE DID THE FOLLOWING GROUPS OR INDIVIDUALS HAVE ON YOUR DECISION TO ATTEND PIEDMONT TECH? (Please use the same legend as above.)

15.	Your family	1	2	3	4
16.	Your friends	1	2	3	4
17.	Former students of Piedmont Tech	1	2	3	4
18.	High school Counselor	1	2	3	4
19.	High school teacher or coach	1	2	3	4
20.	Piedmont Tech counselor or recruiter	1	2	3	4
21.	Piedmont Tech student	1	2	3	4

IV. HOW MUCH INFLUENCE DID THE FOLLOWING HAVE ON YOUR DECISION TO ATTEND PIEDMONT TECH? (Please continue to use the same legend.)

22.	College or career day at your high school	1	2	3	4
23.	Prospects of financial aid	1	2	3	4
24.	A visit to your high school by Piedmont Tech representatives	1	2	3	4
25.	Piedmont Tech catalog	1	2	3	4
26.	Booklets, leaflets, or brochures describing programs available at Piedmont Tech	1	2	3	4
27.	Articles, news releases, and other publicity in the local newspaper	1	2	3	4
28.	New Campus	1	2	3	4
29.	Billboard advertising	1	2	3	4
30.	TV and/or radio advertising	1	2	3	4
31.	Personal contact or phone calls from Piedmont Tech	1	2	3	4
32.	Encouragement by your employer	1	2	3	4

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